S
628.168
Hapelrpv
1982

DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES

PLEASE RETURN

Montana State Library
3 0864 1006 8569 5

TED SCHWINDEN, GOVERNOR

STATE OF MONTANA

STATE DOCUMENTS COLLECTION
HELENA, MONTANA 59620
FEB 15 1984
MONTANA STATE LIBRARY
1515 E. 6th AVE.
HELENA, MONTANA 59620

September 3, 1982

Governor's Office, Helena, MT 59620
Dawson County Health Department, Courthouse, P. O. Box 811, Glendive, MT 59330
Montana State Library, Helena, MT 59620
Environmental Quality Council, Helena, MT 59620
Department of Commerce, Helena, MT 59620
Department of Fish, Wildlife and Parks, Helena, MT 59620
Department of Highways, Helena, MT 59620
Department of Natural Resources and Conservation, Helena, MT 59620
Montana Bureau of Mines & Geology, C/O Montana Tech, West Park Street, Butte, MT 59701
Fire Marshal Bureau, Department of Justice, 1409 Helena Ave., Helena, MT 59620
Soil Conservation Service, Federal Building, Bozeman, MT 59715
HUD Regional/Area Office, O.I.L.S.R., ATTN: Carroll Goodwin, Executive Tower Building, 1405 Curtis Street, Denver, CO 80202
HUD Regional/Area Office, O.I.L.S.R., ATTN: Pat Donohue, Executive Tower Building, 1405 Curtis Street, Denver, CO 80202
Dawson County Commissioners, Courthouse, Glendive, MT 59330
Dawson County Sheriff, P. O. Box 776, Glendive, MT 59330
Glendive Public Schools, P. O. Box 701, Glendive, MT 59330
Cumin Associates, 528 Grand Ave., Billings, MT 59104
Warren Carlson, Carlson Ranch, C. B. Route, Glendive, MT 59330
Information Unit, Department of Health & Environmental Sciences, Helena, MT 59620
Environmental Information Center, P. O. Box 1184, Helena, MT 59624
Montana Historical Society, 225 N. Roberts, Helena, MT 59601
Rita and Richard J. Reynolds, P. O. Box 682, Glendive, MT 59330
Glendive City Fire Hall, City Hall, Glendive, MT 59330

RE: Pleasant View Subdivision
Dawson County

Ladies and Gentlemen:

The enclosed Preliminary Environmental Review has been prepared for the Pleasant View Subdivision in Dawson County, and is submitted

"AN EQUAL OPPORTUNITY EMPLOYER"

Digitized by the Internet Archive
in 2017 with funding from
Montana State Library

https://archive.org/details/preliminaryenvi1982stra_0

for your consideration. Questions and comments will be accepted until September 17, 1982. One extension of time not to exceed seven days will be granted upon request if there is sufficient reason for the request. All comments should be sent to the undersigned.

Sincerely,

Edward W. Casne, P.E., Chief
Subdivision Bureau
Environmental Sciences Division

EWC/JAS/jjg

Enclosures

DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES
Cogswell Building, Helena, Montana 59601
(406)449-3946

PRELIMINARY ENVIRONMENTAL REVIEW

Division/Bureau: Environmental Sciences Division - Subdivision Bureau

Project or Application: Pleasant View Subdivision

Description of Project: The developers propose to create 36 lots in Phase I and an additional 60 lots in future phases for a total of 96 lots. Each lot is intended for single family dwellings and are proposed to utilize individual wells and sewage disposal systems. The sewage systems will consist of conventional type septic tanks for primary treatment and subsurface drainfields for secondary treatment.

POTENTIAL IMPACT ON PHYSICAL ENVIRONMENT

	Major	Moderate	Minor	None	Unknown	Comments on Attached Pages
1. Terrestrial & aquatic life and habitats				X		
2. Water quality, quantity and distribution			X			
3. Geology & soil quality, stability and moisture			X			
4. Vegetation cover, quantity and quality			X			
5. Aesthetics			X			
6. Air quality			X			
7. Unique, endangered, fragile, or limited environmental resources				X		
8. Demands on environmental resources of land, water, air & energy		X				
9. Historical and archaeological sites					X	

POTENTIAL IMPACTS ON HUMAN ENVIRONMENT

	Major	Moderate	Minor	None	Unknown	Comments on Attached Pages
1. Social structures and mores			X			
2. Cultural uniqueness and diversity					X	
3. Local and state tax base & tax revenue						
4. Agricultural or industrial production			X			
5. Human health			X			
6. Quantity and distribution of community and personal income			X			
7. Access to and quality of recreational and wilderness activities				X		
8. Quantity and distribution of employment			X			
9. Distribution and density of population and housing			X			
10. Demands for government services			X			
11. Industrial & commercial activity				X		
12. Demands for energy		X				
13. Locally adopted environmental plans & goals					X	
14. Transportation networks & traffic flows			X			

Other groups or agencies contacted or which may have overlapping jurisdiction Dawson County Planning Board; Dawson County Health Department.

Individuals or groups contributing to this PER. Contributors are noted in the Preliminary Environmental Review

Recommendation concerning preparation of EIS Recommend against the preparation of an Environmental Impact Statement

PER Prepared by: Joseph A. Strasko, R.S.

Date: August 19, 1982

DHES/ESD-2

POTENTIAL IMPACT ON PHYSICAL ENVIRONMENT

1. Terrestrial & Aquatic Life and Habitats

This subdivision site currently provides terrain for typical plains animals such as antelope, deer, rodents, hawks, common birds, etc. This site does not contain any natural water systems such as streams, rivers, intermittent streams, lakes or marshes which would provide aquatic life and habitats.

2. Water Quality, Quantity and Distribution

A hydrogeology Report performed by Dr. Thomas T. Zuick, Geologist, states that it would seem that an aquifer system (confined) or systems (unconfined) are present in the subsurface of Pleasant View Subdivision. It also appears that the aquifers are adequately recharged enough to counter balance potential usages associated with the development of the area. Hence, little, if any, degradation of the aquifer is contemplated as related to development. The report further states that "It would appear then, that aquifer systems are present in the subsurface of the property. These aquifers are apparently able to meet the demands of the subdivision through drilled domestic wells and satisfy State Department of Health standards."

The following is a table that shows estimations of the water budget based on a demand value of 400 gallons per day average family dwelling. These calculations were printed in the hydrogeological report.

WATER BUDGET PLEASANT VIEW SUBDIVISION

Units	Acres/Unit Density	Water Requirement	% of Water in Aquifer
10	15.59	1,460,000	0.0005
20	7.79	2,920,000	0.001
40	3.90	5,840,000	0.002
80	1.95	11,680,000	0.004
96	1.62	14,016,000	0.005

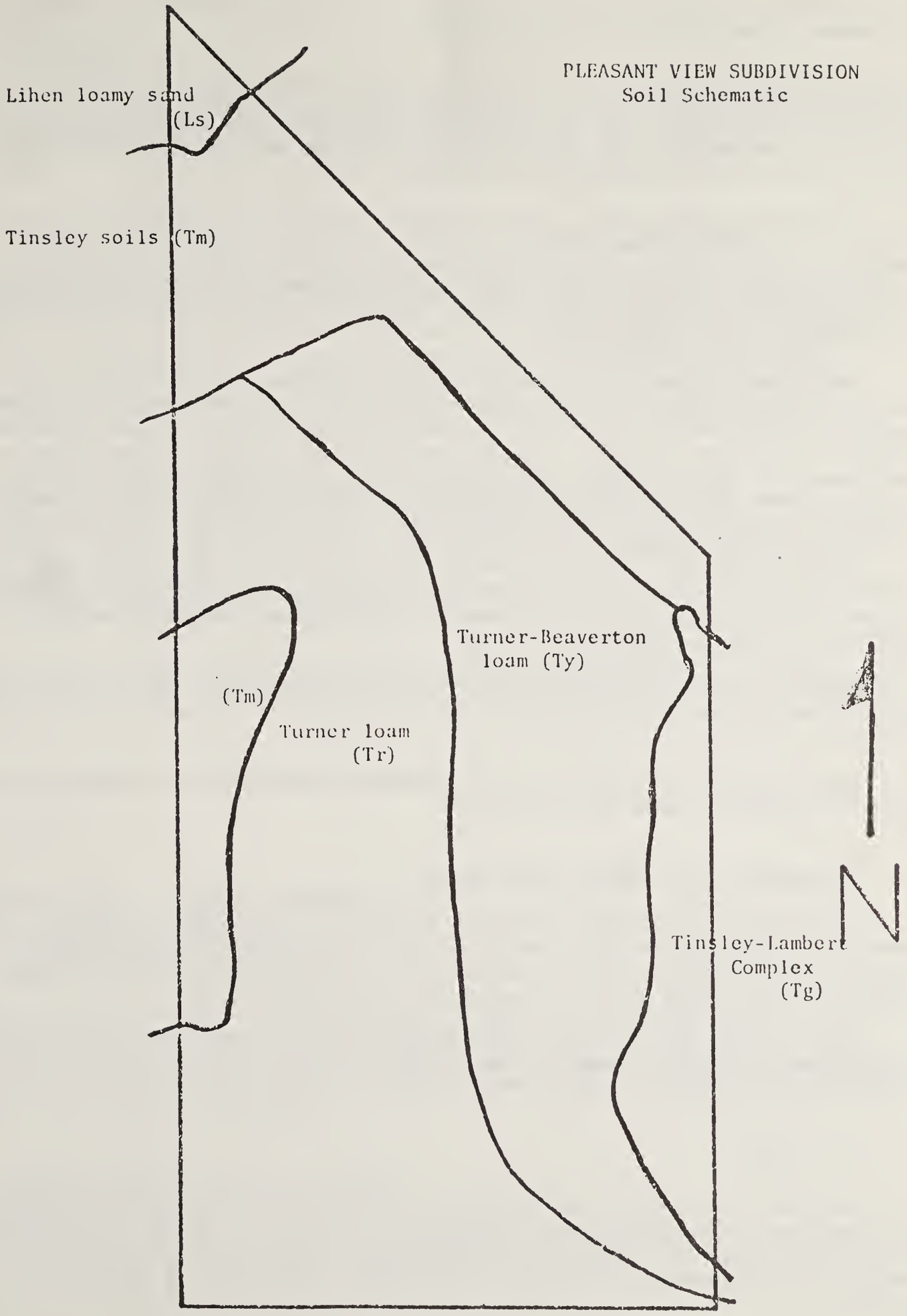
These calculations show potential supply and demand, but only represent a hypothetical breakdown of dwelling units in the subdivision.

Sewage disposal will be through the utilization of individual septic tanks and drainfields. According to Mike Carlson, District Conservationist, there are no perennial flowing streams on this land and there are no high water table areas on this land since this area is located on an upland area that has dry soils. This information along with the soils information and percolation test results indicate that septic tank effluent should be properly treated.

3. Geology & Soil Quality, Stability and Moisture

On page 4 is a graphical representation of the Pleasant View Subdivision which shows the soil regions with the subdivision based on Soil Conservation Service classification.

PLEASANT VIEW SUBDIVISION
Soil Schematic



According to this graphical representation and the Environmental Impact Assessment, five different soil types exist -

The Lihen loamy sand (Ls) covers the smallest area of the site, about 1.1 percent or 1.7 acres. The series consists of deep, somewhat excessively drained, sloping to rolling soils on upland terraces and ridges. In a representative profile the surface layer is dark grayish-brown loamy sand about 23 inches thick. It is underlain by grayish-brown loamy sand.

The Tinsley series soils, Tinsley-Lambert complex (Tg) and Tinsley soils (Tm), cover about 27.2 percent of the site or about 42.4 acres. The series consist of deep, excessively drained, steep to very steep soils on the side slopes of high terraces in upland areas. In a representative profile the surface layer is dark grayish-brown gravelly sandy loam about four inches thick. It is underlain by pale-brown very gravelly sand.

The Turner series soils, Turner Loam (Tt) and Turner-Beaverton Loam (Ty) cover about 71.7 percent of the site, or about 111.8 acres of ground. The series consists of deep, well-drained, nearly level to sloping or gently undulating to undulating soils on terraces. In a representative profile the surface layer is dark grayish-brown loam about five-inches thick. The subsoil is grayish-brown clay loam about 15-inches thick. The upper part of the substratum is calcareous, light-gray clay loam about eight-inches thick. The lower part is grayish-brown stratified sand and gravel.

There are no known hazards affecting the development which could result in property damage or personal injury due to: falls, slides or slumps, seismic activity, or rock outcroppings.

According to Mike Carlson, District Conservationist, Soil Conservation Service, there is no high water table on this land. This area is located on an upland area that has dry soils.

Based on a site evaluation by this Department, there are no drainfield sites located on slopes greater than 15 percent.

4. Vegetation Cover, Quantity and Quality

The Environmental Impact Assessment indicates that the major vegetation types present on this development is domestic grasses utilized for pasture and hay. There is a small group of cotton woods near the south central part of the First Filing as well as some wild rose bushes and choke cherry bushes.

There are no known critical plant communities such as shoreline vegetation, vegetations on unstable slopes, or vegetation on soils highly susceptible to wind or water erosion.

5. Aesthetics

Aesthetics is a highly subjective issue and there is very little agreement as to whether any housing project detracts or enhances the beauty of a property. The aesthetic appeal of the project will depend a large part on the measures taken to restore damaged area quickly and maintain buildings and roads after occupancy.

6. Air Quality

Air quality could deteriorate with the use of household wood burning stoves, however, with limited access to fire wood and low density of population in this area, this problem would not be expected to be significant. Roads are proposed to be gravel increasing dust problems during dry and windy periods.

7. Unique, Endangered, Fragile, or Limited Environmental Resources

There are no unique, endangered, fragile or limited environmental resources within this subdivision. The soils are of such that good filtering and aerobic treatment of septic tank effluent should be accomplished. The hydrogeological report indicates that aquifers are deep enough to prevent possible pollution from sewage systems and an adequate aquifer exists to provide good quantities and quality of water for domestic purposes without causing an adverse effect on the aquifer.

8. Demands on Environmental Resources of Land, Water, Air & Energy

Rural subdivisions require more energy and material than urban expansions due to lower density and extensions of roads and utilities. Homeowners at the development will consume more gasoline commuting to jobs and shopping centers than will residents of Glendive's central districts.

If approved plans for water supply, sewage disposal, storm water runoff control and solid waste disposal are not followed, water quality may be adversely affected.

9. Historical and Archaeological Sites

Unknown

POTENTIAL IMPACTS ON HUMAN ENVIRONMENT

1. Social Structures and Mores

It is difficult to determine the final impact that development will have on social structures and mores. Such an impact would seem to be dependent on the people who will purchase the lots. However, it would seem reasonable to assume that these lots would be purchased by people whose social or moral values are typical of the general community.

2. Cultural Uniqueness and Diversity

No comment.

3. Local and State Tax Base & Tax Revenue

The first phase of this subdivision will consist of 42.7 acres. The development of this land should generate $16,226. Presently as agriculture/pasture land it generates $550.

The second phase will consist of approximately 108 acres (108 X 380.00/acre) generating a total of $41,040. The current agriculture/pasture land generates approximately $1,188 (108 X 11.00/acre).

This is based on a mill value of $295. The acreage size is based on the total amount of land to be developed over all phases, consisting of 155.87 acres as mentioned in the County Planning Board minutes.

4. Agricultural or Industrial Production

According to Cumin Associates, authors of the Environmental Impact Assessment "The Turner Loam (Tt) soil is one of the good soils in Dawson County; it is a class II soil for dryland farming and a class II soil for irrigated farming. Although it is one of the principal objectives of the Comprehensive Plat to protect good farmland, this particular soil is a relatively small, disjointed piece. It is surrounded by class IV and class VII soils on and off of the site. Thus, it presents a farmer a rather small and uneconomical piece of farmland. In addition, this tract of ground is above the elevation of the main canal which makes irrigation of the site almost impossible."

The January 26, 1982 letter received by the Dawson County Planning Board indicates that this development was denied because of non-compliance to basic policies of the Comprehensive Plan. The policies are of compact development and discouraging of leap-frog development and the Farmland Protection Policies.

5. Human Health

Unknown

6. Quantity and Distribution of Community and Personal Income

This is a difficult impact to access as it is not known from where future residents might come or where they would be employed. Some may already live in the Glendive area and have little if any impact with respect to distribution of income. Residents coming from areas outside the Glendive area would cause an increase in community income and an increase in employment and commercial activity.

7. Access to and Quality of Recreational and Wilderness Activities

There is no known direct access to public lands through this subdivision.

8. Quantity and Distribution of Employment

It is probable that most new home sales would result from a general increase growth of the Glendive area and not a shift of population. Therefore, a substantial growth of community income should result upon occupancy of the total area.

9. Distribution and Density of Population and Housing

The following projected marketing of Pleasant View Subdivision was provided by Cal Cumins Associates:

> "It is anticipated by the developer that the first phase of 35 lots will be marketed in about three years, or at a rate of about 12 lots a year. The developer presently has six lots sold as soon as the project receives DHES approval and is platted. It is apparent from the inqueries made to Glendive realtors that more lots would be spoken for if Pleasant View was actually platted. It should also be noted that even without any formal subdivision process, six homes have located adjacent to the development site in Sand Creek.
>
> Because of the ease of access to Glendive via the interstate combined with the definitely "in country" environment, it is felt that Pleasant View offers the home-seeker an alternative to those lots presently on the Glendive real estate market.
>
> The preliminary figures (from the Dawson County Comprehensive Plan) for the 1980 census show a county and a Glendive population of 11,606 and 5,925 respectively and a respective housing unit count of 4,579 and 2,435; this reflects a density per housing unit of about 2.5 for the area. The County Plan projects - 1985, 2000, and 2020 populations with energy development of 14,416, 17,645, and 22,461 respectively. As indicated, this projection is with coal and oil resource development which, although is in a current slowdown, is expected to continue in the long run. As further discussed in the County Plan, 70 percent of the petroleum mining workers are between 18 and 25 years old, recently married, and have one child. Although this is just one segment of Glendive's future housing market, it is anticipated that the lots in Pleasant View will be attractive to such families.
>
> The projected population for 1985 shown above will require an additional 1,124 housing units in 1985, an additional 1,292 units by the end of the century, and 1,926 units by 2020. It is anticipated that Pleasant View will provide some of this demand as it is planned as a long term project (20 years). Accordingly, after the first three years, the owner need only sell about 3.5 lots per year to meet his anticipated growth schedule."

10. Demands for Government Services

The following information was provided in the Environmental Impact Assessment:

Emergency Services

The proposed subdivision is within an area that is served by the Glendive Fire Department under a contract with the County Commissioners for rural fire protection. The county fire district is largely unstructured, with water trucks strategically located at several farms throughout the county; these water trucks

are primarily used to fight grass fires. If a fire were to occur in this subdivision, a triple combination pumper would respond from the downtown fire station as well as a tanker stored at the West Glendive fire station; both of these units are about 12 miles from the site. In addition, one of the grass fire units, located about 22 miles to the west and south (Don Moffit's ranch), would respond. The fire chief has indicated that the homeowners association may want to form a local fire brigade to aid in fighting fires in that general area of the County; this concept could be important in saving a home due to the response time required to get a truck to the site. Police protection would be furnished to the general area by the periodic patrols of the Dawson County Sheriff's Department headquartered about 12 miles from the site. Hospital and medical clinic facilities are available at the Glendive Community Hospital, a distance of about 13 miles from Pleasant View Subdivision.

These services are all tax supported. The additional taxes which will be generated by the development of this subdivision will assist in the mitigation of additional costs which may be incurred providing services to the area. However, since these services are tax supported, the entire tax base will bear the cost of future expansions of the emergency services necessitated by the growth of the entire community.

The following is the reponse made by Larry Heimbach, Board of Trustees:

"In regard to the development of the Pleasant View Subdivision located west of Glendive, it does not appear there would be any problem with the enrollment with our school system. This subdivision is within our school district which should be able to serve students whose parents may relocate their homes to that area."

According to Howard Hodous, Dawson County Sheriff:

"The development of the Pleasant View Subdivision, which is within our patrol boundaries, will be no problem in the area of law enforcement, due to the anticipated slow development of the area."

11. Industrial & Commercial Activity

None

12. Demands for Energy

Overhead power and underground telephone services exist in the right of way of the county road along the southern property line of the site. It is assumed that the power and telephone service will be extended throughout the site in underground lines. At this time utility companies have not been contacted in reference to possible services.

13. Locally Adopted Environmental Plans & Goals

According to the County Planners letter dated January 26, 1982 the County's goals are the policy of compact development and to enforce the Farmland Protection Policies. This development is in conflict with the goals, objectives and policies of the Comprehensive Plan as it will use agricultural land for urban purposes.

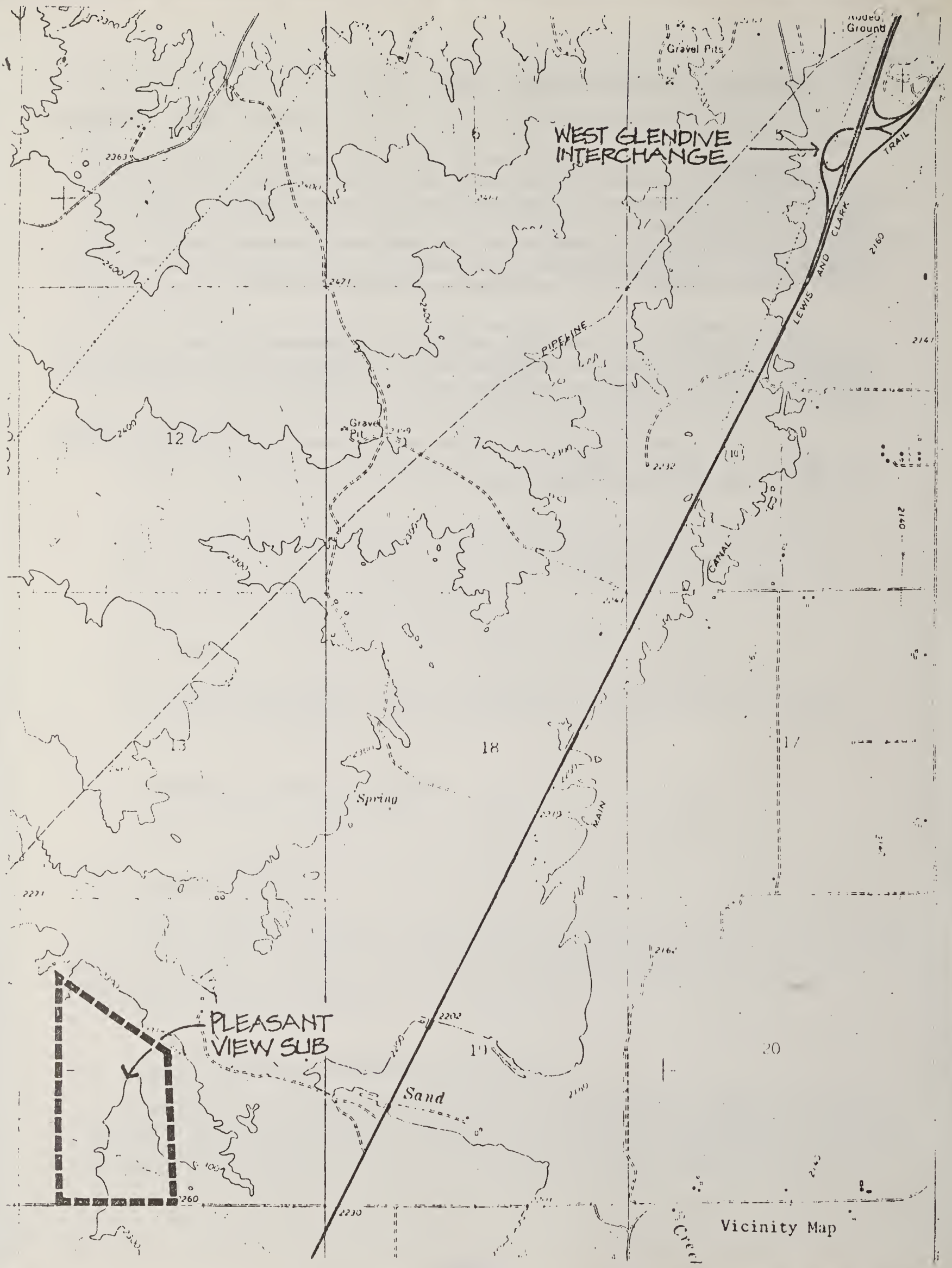
14. Transportation Networks & Traffic Flows

The following information was provided in the Environmental Impact Assessment:

The developer will set aside about 13,800 lineal feet of 50-foot right of way for roads in the Master Plan with about 4,260 feet of that total in the First Filing. The streets are proposed as private roadways and are labeled as lot 37 on the proposed preliminary plat. The developer intends to build the streets with a crowned cross-section and drainage swales along the sides of the right of way. The ongoing maintenance of the roadways will be the responsibility of the planned Pleasant View Subdivision Homeowners Association.

Using a standard of 10.0 trips per day per dwelling unit, a total of 350 trips could be generated by the completed, fully occupied First Filing; the total development could generate 960 trips per day. The standard of 10.0 trips per day was obtained from the Trip Generation Manual of the Institute of Traffic Engineers, 1979.

As was referenced in the soils section, special construction design standards may have to be used for road cross section depending upon specific on-site testing during actual road construction.


WEST GLENDIVE
INTERCHANGE
PLEASANT
VIEW SUB
Gravel Pits
Rodeo Ground
LEWIS AND CLARK TRAIL
PIPELINE
Gravel Pit
CANAL
MAIN
Spring
Sand
Creek
Vicinity Map